

PRODUCT CHANGE NOTIFICATION

PCN No.:	10077	Date of Issue:	2020/08/26																				
Title of Change:	Chip Efficiency & Brightness Improvement	PCN Effective Date:	2020/08/26																				
Change Description:	QTB datasheet is updated due to increased LED brightness on the Red LED.																						
Reason for Change:	Due to the chip performance and efficiency improved over the year, LED light output is increased.																						
Date Code Identification	QBLP679-RK (High Bright) shipped AFTER 08/25/2020 (Date Code: 200825) will have new brightness binning																						
Effect of Change on Product Fit, Form, or Function	Fit: Remains Unchanged, Form: Remains Unchanged, Function: Unchanged																						
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	10/10/2010	Revision A																					

Datasheet Version

Old New
V2.0 V2.1

Old

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)*	V _F (V)		λ _D (nm)			I _V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP679-RK (High Bright)	Red	60	2.0	2.5	620	625	635	1000	1800

*Total forward current for three dies

Absolute Maximum Rating

Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)**	ESD (V)
AlInGaP	216	90	125	5	-40 ~ +80	-40 ~ +85	260	HBM 8000

*Duty 1/8 @ 1KHz

**IR Reflow for no more than 10 sec @ 260 °C

Forward Voltage V_F @ I_F=60mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

Dominant Wavelength λ_D @ I_F=60mA

Bin	Min.	Max.	Unit
C	620	625	nm
D	625	630	
E	630	635	

Luminous Intensity I_V for Red @ I_F=60mA

Bin	Min.	Max.	Unit
15	1000	1300	mcd
16	1300	1700	
17	1700	2200	

New

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I _F (mA)*	V _F (V)		λ _D (nm)			I _V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP679-RK (High Bright)	Red	60	2.0	2.5	620	625	635	1300	2000

*Total forward current for three dies

Absolute Maximum Rating

Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)**	ESD (V)
AlInGaP	216	90	125	5	-40 ~ +80	-40 ~ +85	260	HBM 8000

*Duty 1/8 @ 1KHz

**IR Reflow for no more than 10 sec @ 260 °C

Forward Voltage V_F @ I_F=60mA

Bin	Min.	Max.	Unit
□	1.7	2.5	V

Dominant Wavelength λ_D @ I_F=60mA

Bin	Min.	Max.	Unit
C	620	625	nm
D	625	630	
E	630	635	

Luminous Intensity I_V for Red @ I_F=60mA

Bin	Min.	Max.	Unit
16	1300	1700	mcd
17	1700	2200	
18	2200	3200	